

## ABSTRACT

Provided is a method of treating or ameliorating certain fibrotic diseases or other indications in an animal, including a human, comprising administering an effective amount of a compound of the formula I:



wherein:

- a. Ar is a five or six membered heteroaryl ring having a first ring nitrogen and optionally second or third ring nitrogens, with the remaining ring atoms being carbon, oxygen, or sulfur, provided the first nitrogen of Ar is a quaternary nitrogen and Ar is not thiazolium, oxazolium or imidazolium;
- b. Y is substituted on the first ring nitrogen, with the proviso that if Ar is pyrazole, indazole, (1,2,3)-triazole, benzotriazole, or (1,2,4)-triazole, the second ring nitrogen is substituted
- c. Y is:
  1. a group of the formula  $-\text{CH}(\text{R}^5)-\text{R}^6$  [as preferred in one embodiment]
    - (a) wherein  $\text{R}^5$  is hydrogen, alkyl-, cycloalkyl-, alkenyl-, alkynyl-, aminoalkyl-, hydroxy[ $\text{C}_1$  to  $\text{C}_6$ ]alkyl, dialkylaminoalkyl-, (N-[ $\text{C}_6$  or  $\text{C}_{10}$ ]aryl)(N-alkyl)aminoalkyl-, piperidin-1-ylalkyl-, pyrrolidin-1-ylalkyl-, azetidinyllalkyl, 4-alkylpiperazin-1-ylalkyl, 4-alkylpiperidin-1-ylalkyl, 4-[ $\text{C}_6$  or  $\text{C}_{10}$ ]arylpiperazin-1-ylalkyl, 4-[ $\text{C}_6$  or  $\text{C}_{10}$ ]arylpiperidin-1-ylalkyl, azetidin-1-ylalkyl, morpholin-4-ylalkyl, thiomorpholin-4-ylalkyl, piperazin-1-ylalkyl, piperidin-1-ylalkyl, [ $\text{C}_6$  or  $\text{C}_{10}$ ]aryl, or independently the same as  $\text{R}^6$ ;
    - (b) wherein  $\text{R}^6$  is
      - (1) hydrogen, alkyl (which may be substituted by alkoxy carbonyl)-, alkenyl, alkynyl, cyano-, cyanoalkyl-, or  $\text{R}_s$ , wherein  $\text{R}_s$  is a [ $\text{C}_6$  or  $\text{C}_{10}$ ]aryl or a heterocycle containing 4-10 ring atoms of which 1-3 are heteroatoms selected from the group consisting of oxygen, nitrogen and sulfur; or
      - (2) a group of the formula  $-\text{W}-\text{R}^7$  [as preferred in one embodiment], wherein  $\text{R}^7$  is alkyl, alkoxy, hydroxy, or  $\text{R}_s$  [as preferred in one embodiment], wherein W is  $-\text{C}(=\text{O})-$  or  $-\text{S}(\text{O})_2-$ ;
      - (3) a group of the formula  $-\text{W}-\text{OR}^8$  wherein  $\text{R}^8$  is hydrogen or alkyl,
      - (4) a group of the formula  $-\text{CH}(\text{OH})\text{R}_s$ ; or
      - (5) a group of the formula  $-\text{W}-\text{N}(\text{R}^9)\text{R}^{10}$ , wherein
        - (a)  $\text{R}^9$  is hydrogen and  $\text{R}^{10}$  is an alkyl or cycloalkyl, optionally substituted; or
        - (b)  $\text{R}^9$  is hydrogen or alkyl and  $\text{R}^{10}$  is  $\text{Ar}^*$ ; or
        - (c)  $\text{R}^9$  is hydrogen or alkyl,  $\text{R}^{10}$  is a heterocycle containing 4-10 ring atoms of which 1-3 are heteroatoms are selected from the group consisting of oxygen, nitrogen and sulfur; or
        - (d)  $\text{R}^9$  and  $\text{R}^{10}$  are both alkyl groups; or
        - (e)  $\text{R}^9$  and  $\text{R}^{10}$  together with N form a heterocycle containing 4-10 ring atoms which can incorporate up to one additional

heteroatom selected from the group of N, O or S in the ring,  
 wherein the heterocycle is optionally substituted; or  
 (f)  $R^9$  and  $R^{10}$  are both hydrogen; or

2.  $-NH_2$ , and

- 5 e. X is a pharmaceutically acceptable anion, which may be absent if the compound provides a neutralizing salt, or  
 (B) a pharmaceutically acceptable salt of the compound.

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